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February 23, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of January 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for January 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- collecting the quarterly and semi-annual monitoring well samples;
- sending an access agreement to the owner of the property where the Goodyear Farms irrigation well is located to gain permission to properly plug and abandon that well;
- reviewing City of Goodyear requirements for permits;
- conducting the redevelopment of I-201 and I-203 (January 19th start);
- conducting a contractor pre-bid conference for the pipeline expansion work (January 21st);
- receiving city of Goodyear comments on the plans (January 26th);
- submitting plans and specifications to the City of Phoenix (January 5th);
- reviewing the plans and specifications with the city of Phoenix (January 21st);
- providing the off site landowner (Kohnen) with the plans and specifications for review;
- preparing the Second Semi-Annual 2003 report; and
- receiving confirmation that USEPA and ADEQ grant approval of the engineering design pending approval by City of Goodyear engineering department.

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc:

J. Sussman, Goodyear Tire & Rubber Company

J. Sickles, USEPA

S. Reif, Arizona Department of Water Resources

K. Zaleski, BEM Systems, Inc.

R. Bartholomew, Bartholomew Engineering

D. Stoltzfus, City of Phoenix

C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEO)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

January 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

February 23, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during January 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- collecting the quarterly and semi-annual monitoring well samples;
- sending an access agreement to the owner of the property where the Goodyear Farms irrigation well is located to gain permission to properly plug and abandon that well;
- reviewing City of Goodyear requirements for permits;
- conducting the redevelopment of I-201 and I-203 (January 19th start);
- conducting a contractor pre-bid conference for the pipeline expansion work (January 21st);
- receiving city of Goodyear comments on the plans (January 26th);
- submitting plans and specifications to the City of Phoenix (January 5th);
- reviewing the plans and specifications with the city of Phoenix (January 21st);
- providing the off site landowner (Kohnen) with the plans and specifications for review;
- preparing the Second Semi-Annual 2003 report;
- receiving confirmation that USEPA and ADEQ grant approval of the engineering design pending approval by City of Goodyear engineering department.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on January 16, 2004, resulted in a non-detect at $<1.0 \mu g/L$ for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing. Access for the January sampling and water level measurements was acquired for January 2004.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon the well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained. The landowner was contacted in January 2004 and an agreement sent for their review.

PLANS FOR THE NEXT MONTH

Plans for February 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- submitting an evaluation of the TCE fluctuations in E-101 to USEPA and ADEQ;
- submitting the Second Semi-Annual 2003 report to ADEQ and USEPA;
- receiving bids for the pipeline expansion (February 4th);
- selecting a contractor for the pipeline expansion;
- receiving approval of the engineering design by the City of Goodyear;
- meeting with USEPA and ADEQ to discuss project status (February 19th);
- preparing a modified operational approach for operation of the Southern Subunit C system to accommodate the taxiway paving project; and
- Providing a summary of the redevelopment of I-201 and I-203.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

,	,					
Extraction	8/15/03	9/11/03	10/16/03	11/13/03	12/12/03	1/16/04
Well	CRT*	CRT*	CRT*	CRT*	CRT*	CRT*
W CII	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NE-1	NA	0.063	0.059	NA	NA	0.067
NE-2	NA	0.008	0.006	NA	NA	0.014
NE-3	NA	NA	0.009	NA	NA:	0.011
NE-4	NA	NA	NA	0.039	NA	0.030
NE-5	NA	0.099	0.089	0.092	0.100	0.092
E-07R	0.240	NA	NA	0.245	0.245	0.236
E-08	NA	0.054	0.065	NA	NA	0.050
E-11	NA	0.033	0.030	NA	NA	0.028
E-12	0.233	0.191	NS	0.214	0.214	0.248
E-16	NS	NS	NS	NS	NS	NS
E-17	0.154	0.147	0.138	0.142	0.155	0.161
Air stripper Effluent predicted	0.091	0.075	0.051	0.073	0.075	.079
(a)				_		
Air stripper Effluent	0.101	0.098	0.044	0.073	0.078	.072
actual		1 1504 20				

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS - not sampled due to well off line.

NA - not analyzed as per sampling program.

⁽a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during January 2004. A total of 6.0 million gallons (MG) of water were extracted. The system operated 31 out of 31 days in January. The treatment system influent sample contained TCE at a concentration of 2.8 μ g/L (1/16/04) yielding a calculated mass removal this month of 0.14lbs. Total mass removed to date by the system is 22.30 lbs. TCE was detected in the sample collected between the carbon vessels at 1.5 μ g/L. The Northern Subunit C system operated for the entire month without outages.

Production for January 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.8	85.1	31/85.1
GAC#2 **	2.2	49.3	31/49.3
Total Extracted	6.0	134.4	

^{*} Injection well flow meter not operating correctly and is reporting erroneous data

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 8.0 MG of water was extracted from the Southern Subunit C treatment system during January 2004. The system operated 30.1 out of a possible 31 days. The January inlet sample contained TCE at 6.2 μ g/L (1/16/04) yielding a calculated mass removal for TCE during January of 0.24 lbs. Total mass removed to date by the Southern Subunit C system is 161.32 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system operated the entire month without outages.

^{**} Total flow based on data as reported by Lockheed Martin reported on 1/2/04 - 2/2/04 for well GAC#2.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B""/A""	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00-10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 12 months	to be determined

^{*} Vessel contents

Production for the Southern Subunit C system in January 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	4.6	103.0	25.2/126.7
E-202	3.4	76.2	25.9/91.2
E-203		WELL REMO FROM SERV	
Totals	8.0	179.2	30.1/184.6
Injection	Production	Average	Days On/Avg.Rate
Wells	(MG)	Rate(gpm)	(days/gpm)
I-201	2.9	65.0	25.1/80.2
I-202	3.0	67.2	25.1/83.0
I-203	1.6	35.8	30.1/36.9
Totals	7.5	168.0	. 30.1/173.0

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 23.2 MG of water was treated at the Subunit A system in January 2004. The Subunit A extraction system operated at an average uptime rate of 519.7 gpm for 31 of 31 days this month.

The Subunit A treatment system operated the entire month without outages.

The treatment system influent sample contained TCE at a concentration of 80.0 µg/L (1/16/04) yielding a calculated mass removal of 15.49 lbs for the month of January. The cumulative total

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')

^{**} The detection limit is I µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

TCE mass removed by the Subunit A treatment system to date is 4,747.64 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was $<1.0 \mu g/L$.

Production for the Subunit A system in January 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	23.2	519.7	31/519.7
Total Injected	22.3	499.6	31/499.6

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log Project Manager Input Form

PERIOD COVERED: January 2004 DATE DUE: February 15, 2004

	~	THE DOES TODIALLY 10, 2004	
ADMINISTRATIVE INFORMATION:			
1. Main Site Code: 41-0000-02			
1a. Facility Site Code:			
2. Site Name Phoenix Goodyear Airpo	ort (sout	h)	
3. Project Manager: Nancy Lou Minkler			
4. Funding Type: CERCLA- consent decre	ee requi	red	
Technical Information			
5. DEQ Site Visits (RPM & Hydro)	0 6 .	Meetings w/Ips	0
7. Public Meetings Held		Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	3 10	0. Water Samples Taken (IP)	
r (,	0	1	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)	12	. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)		. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ)		Groundwater Wells Installed (IP)	0
Date Installed / /		(_)	•
17. Soil Vapor Wells Installed (DEQ)	0 18	. Soil Vapor Wells Installed (IP)	0
Date Installed//		Date Installed / /	-
19. Abandoned Groundwater Wells	0 20	Abandoned Other Wells	0
Date Abandoned / /		Date Abandoned / /	•
21. Remedial Investigation (started) overall area	0 22	Remedial Investigations (completed)	0
and/or facilities (see comments).	·	· reamedia: m. verigariene (veripiete)	·
23. Date Risk Assessment Completed	0 24	Date Feasibility Study Underway	0
-5. Sate rask rassessment completed	~	/ /	ŭ
25. Date Feasibility Study Went Underway	0 26	Remedial Design 10% 30% 60%	100%
27. Construction Start Date/_/		Technology Used: pump and treat for	10070
27. Constituction start Date	0 20.	water (air stripper Subunit A/GAC for	
		Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A;	30	Date Remedial Action Completed	
2/94 North Subunit C; 10/94 South Subunit C	50.	/ /	
2/74 North Subulifi C, 10/74 South Subulifi C		 ''	
31. Gallons Water Treated (VOCs)	32	Hazardous Substance Removed	15.87
51. Ganons Water Treated (VOCS)		OCs) in GW Treatment	15.07
Subunit A	()	ocs) in GW Treatment	
23,200,000			
Southern Subunit C			
8,000,000			
Northern Subunit C			
6,000,000	0.24	II I C.I., D. I	0
33. Gallons Water Treated (metals)		Hazardous Substance Removed	0
		etals)	0.11.
35. Gallons Water Treated (other)		Hazardous Substance Removed	0 lbs
48 T. O. 1 T 1 O. C.	•	her)	0.4
37. Tons Soil Treated On-Site	0 38.	Tons Soil Taken Off-site	0 (tons)
0 (tons) 1 cy = 1 ton			
39. Acres Remediated	40	End Use of Water - (reinjection)	
41. Estimated reject Completion Date		Actual Completion Date / /	
11. Sommaroa ropor Completion Date	T#.	i i com Compient Date / /	



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March 15, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of February 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for February 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- submitting the Second Semi-Annual 2003 report to ADEQ and USEPA;
- receiving bids for the pipeline expansion (February 4th);
- selecting a contractor for the pipeline expansion;
- meeting with USEPA and ADEQ to discuss project status (February 19th); and
- providing a summary of the redevelopment of injection wells I-201 and I-203.

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Il Strete

Todd Struttmann, P.E.

Principal

- cc: J. Sussman, Goodyear Tire & Rubber Company
 - J. Sickles, USEPA
 - S. Reif, Arizona Department of Water Resources
 - K. Zaleski, BEM Systems, Inc.
 - R. Bartholomew, Bartholomew Engineering
 - D. Stoltzfus, City of Phoenix
 - C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEQ)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

February 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

March 15, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during February 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- submitting the Second Semi-Annual 2003 report to ADEQ and USEPA;
- receiving bids for the pipeline expansion (February 4th);
- selecting a contractor for the pipeline expansion;
- meeting with USEPA and ADEQ to discuss project status (February 19th); and
- providing a summary of the redevelopment of injection wells I-201 and I-203.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on February 12, 2004, resulted in a detection at 1.2 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing. Access for the January sampling and water level measurements was acquired for January 2004. The next event is scheduled for April.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon the well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained. The landowner was contacted in January 2004.

PLANS FOR THE NEXT MONTH

Plans for March 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- receiving approval of the engineering design by the City of Goodyear for extraction well E-102; and

 beginning construction of extraction well E-102 following design approval by City of Goodyear.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	9/11/03 CRT*	10/16/03 CRT*	11/13/03 CRT*	12/12/03 CRT*	1/16/04 CRT*	2/12/04 CRT*
NE-1	(mg/L) 0.063	(mg/L) 0.059	(mg/L) NA	(mg/L) NA	(mg/L) 0.067	(mg/L) .067
NE-2	0.003	0.039	NA NA	NA NA	0.007	0.014
NE-3	NA	0.009	NA NA	NA NA	0.014	0.014
NE-4	NA NA	NA	0.039	NA NA	0.030	0.030
NE-5	0.099	0.089	0.092	0.100	0.092	0.085
E-07R	NA	NA	0.245	0.245	0.236	0.192
E-08	0.054	0.065	NA	NA	0.050	0.050
E-11	0.033	0.030	NA	NA	0.028	0.028
E-12	0.191	NS	0.214	0.214	0.248	0.651**
E-16	NS	NS	NS	NS	NS	NS
E-17	0.147	0.138	0.142	0.155	0.161	0.158
Air stripper Effluent predicted (a)	0.075	0.051	0.073	0.075	.073	.077
Air stripper Effluent actual	0.098	0.044	0.073	0.078	.072	.070

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during February 2004. A total of 5.9 million gallons (MG) of water was extracted. The system operated 29 out of 29 days in February. The treatment system influent sample contained TCE at a concentration of 3.6 μ g/L (2/11/04) yielding a calculated mass removal this month of 0.18 lbs. Total mass removed to date by the system is 22.48 lbs. TCE was detected in the sample collected between the carbon vessels at 2.2 μ g/L.

The Northern Subunit C system operated for the entire month without outages.

^{**}This result is currently being re-analyzed by the laboratory. This result is not within trends for this well.

NS - not sampled due to well off line.

NA - not analyzed as per sampling program.

⁽a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

Production for February 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.6	86.2	29/86.2
GAC#2 **	2.3	55.1	31/51.5
Total Extracted	5.9	141.3	,

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 8.9 MG of water was extracted from the Southern Subunit C treatment system during February 2004. The system operated 29 out of a possible 29 days. The February inlet sample contained TCE at 6.9 µg/L (2/11/04) yielding a calculated mass removal for TCE during February of 0.51 lbs. Total mass removed to date by the Southern Subunit C system is 161.83 lbs. The TCE result was $<1.0 \mu g/L$ in the sample collected between the carbon vessels.

The Southern Subunit C system operated the entire month without outages.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 μg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B'''/A'''	8/25/99 - 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 13 months	to be determined

^{*} Vessel contents

^{**} Total flow based on data as reported by Lockheed Martin reported on 2/2/04 - 3/4/04 for well GAC#2.

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')

^{**} The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in February 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.3	126.9	29/126.9
E-202	3.6	86.2	29/86.2
E-203		WELL REM FROM SER	
Totals	8.9	213.1	29/213.1
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
I-201	3.3	79.0	29/79.0
I-202	2.7	64.7	29/64.7
I-203	2.4	57.5	28/59.5
Totals	8.4	201.1	

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 21.5 MG of water was treated at the Subunit A system in February 2004. The Subunit A extraction system operated at an average uptime rate of 529.5 gpm for 28.2 of 29 days this month.

The treatment system influent sample contained TCE at a concentration of 88.7 μ g/L (2/12/04) yielding a calculated mass removal of 15.92 lbs for the month of February. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,763.56 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 μ g/L.

The Subunit A Treatment System was offline for 20 hours in February for investigation of a pipe line leak.

Production for the Subunit A system in February 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	21.5	514.8	28.2/529.5
Total Injected	20.7	495.7	28.2/509.8

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log Project Manager Input Form

PERIOD COVERED: February 2004 DATE DUE: March 15, 2004

ADI	MINISTRATIVE INFORMATION:		·	
1.	Main Site Code: 41-0000-02			
1a.	Facility Site Code:			
2.	Site Name Phoenix Goodyear Airpo	rt (:	south)	
3 .	Project Manager: Nancy Lou Minkler			
4.	Funding Type: CERCLA- consent decree	e re	quired	
Tecl	hnical Information			
5. I	DEQ Site Visits (RPM & Hydro)	0	Meetings w/Ips	0
7. F	Public Meetings Held	0	8. Fact Sheets on a site	
9 . \	Water Samples Taken (DEQ/EPA)	3	10. Water Samples Taken (IP)	
		0		
	Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
	Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
	Groundwater Wells Installed (DEQ)		16. Groundwater Wells Installed (IP)	0
	Date Installed//			
	Soil Vapor Wells Installed (DEQ)	0	18. Soil Vapor Wells Installed (IP)	0
	Date Installed//		Date Installed//	
	Abandoned Groundwater Wells	0	20. Abandoned Other Wells	0
	Date Abandoned//	_	Date Abandoned//	_
	Remedial Investigation (started) overall area	0	22. Remedial Investigations (completed)	0
	and/or facilities (see comments).			
23. L	Date Risk Assessment Completed	0	24. Date Feasibility Study Underway	0
25 T	N . T 1111. O. 1 187 . 18 1	^	26 P 11 1 P 100/ 200/ 600/	1000/
	Date Feasibility Study Went Underway		26. Remedial Design 10% 30% 60%	100%
27. C	Construction Start Date//	U	28. Technology Used: pump and treat for	
			water (air stripper Subunit A/GAC for	
20 Т	Frontment Dient Start Date 12/00 Subunit A.		Subunit C), SVE for Soil	
	Freatment Plant Start Date 12/89 Subunit A;		30. Date Remedial Action Completed	
2	2/94 North Subunit C; 10/94 South Subunit C			
31 (Gallons Water Treated (VOCs)		32. Hazardous Substance Removed	16.61
31. C	Janons Water Treated (VOCs)		(VOCs) in GW Treatment	10.01
c	Subunit A		(VOCS) III GW Treatment	
٥	21,500,000			
c	Southern Subunit C			
S	8,900,000			
N	Northern Subunit C			
1	5,900,000			
33 (Gallons Water Treated (metals)	Λ	34. Hazardous Substance Removed	0
. ·	Janons Water Treated (metals)	U	(metals)	O
35 (Gallons Water Treated (other)	0	36. Hazardous Substance Removed	0 lbs
٠. ١	Sallono Trator I route (Other)	•	(other)	0 100
3 7 . 1	Fons Soil Treated On-Site	0	38. Tons Soil Taken Off-site	0 (tons)
		•	- Jan John Aman Old Gill	- (.02.0)
(0 (tons) 1 cy = 1 ton			
	Acres Remediated		40. End Use of Water - (reinjection)	
	Estimated reject Completion Date		42. Actual Completion Date/ /	



Environmental Engineers, Scientists, & Constructors

756 Park Meadow Road Westerville, Ohio 43081 614.508.1200 614 508.1201 (fax) www.sharpenv.com

April 23, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of March 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for March 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- receiving approval of the engineering design by the City of Goodyear for extraction well E-102; and
- surveying the western City of Phoenix property line to determine whether the perimeter fence is commensurate with the property line.

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

- J. Sickles, USEPA
- S. Reif, Arizona Department of Water Resources
- K. Zaleski, BEM Systems, Inc.
- R. Bartholomew, Bartholomew Engineering D. Stoltzfus, City of Phoenix
- C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEQ)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

March 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

April 23, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during March 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- receiving approval of the engineering design by the City of Goodyear for extraction well E-102; and
- surveying the western City of Phoenix property line to determine whether the perimeter fence is commensurate with the property line.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. Well COG #11 was not sampled in March due to the City of Goodyear taking the well off-line for maintenance. A sample will be collected when the well returns to service.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing. Access for the January sampling and water level measurements was acquired for January 2004. An agreement is anticipated before the next sampling event.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon the well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained. The landowner was contacted in January 2004. GTRC prepared a draft agreement for access, which the landowner is currently reviewing.

PLANS FOR THE NEXT MONTH

Plans for April 2004 include:

• continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system; providing the contractor notice to proceed (completed April 12th);and

 beginning construction of extraction well E-102 following approval of contractor submittals and scheduling of his crew.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction	10/16/03	11/13/03	12/12/03	1/16/04	2/12/04	3/11/04
Well	CRT*	CRT*	CRT*	CRT*	CRT*	CRT*
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NE-1	0.059	NA	NA	0.067	.067	NA
NE-2	0.006	NA	NA	0.014	0.014	NA
NE-3	0.009	NA	NA	0.011	0.011	NA
NE-4	NA	0.039	NA	0.030	0.030	NA
NE-5	0.089	0.092	0.100	0.092	0.085	0.083
E-07R	NA	0.245	0.245	0.236	0.192	0.182
E-08	0.065	NA	NA	0.050	0.050	NA
E-11	0.030	NA	NA	0:028	0.028	NA
E-12	NS	0.214	0.214	0.248	0.651	0.230
E-16	NS	NS	NS	NS	NS	0.011
E-17	0.138	0.142	0.155	0.161	0.158	0.169
Air stripper Effluent predicted (a)	0.051	0.073	0.075	.073	.077	0.075
Air stripper Effluent actual	0.044	0.073	0.078	.072	.070	0.068

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during March 2004. A total of 6.2 million gallons (MG) of water was extracted. The system operated 31 out of 31 days in March. The treatment system influent sample contained TCE at a concentration of 2.4 μ g/L (3/11/04) yielding a calculated mass removal this month of 0.12 lbs. Total mass removed to date by the system is 22.60 lbs. TCE was detected in the sample collected between the carbon vessels at 1.4 μ g/L.

The Northern Subunit C system operated for the entire month without outages.

NS - not sampled due to well off line.

NA – not analyzed as per sampling program.

⁽a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

Production for March 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.8	85.1	31/85.1
GAC#2 **	2.4	53.8	28/59.5
Total Extracted	6.2		

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.4 MG of water was extracted from the Southern Subunit C treatment system during March 2004. The system operated 31 out of a possible 31 days. The March inlet sample contained TCE at 4.7 μ g/L (3/11/04) yielding a calculated mass removal for TCE during March of 0.37 lbs. Total mass removed to date by the Southern Subunit C system is 162.20 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system operated the entire month without outages.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B""/A""	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 14 months	to be determined

^{*} Vessel contents

- A virgin coal based carbon
- B virgin coal based carbon
- A' on site regenerated coal based carbon
- A"- coconut based carbon (applies to A"', A""', A""")
- B' coconut based carbon (applies to B", B", B", and B")

^{**} Total flow based on data as reported by Lockheed Martin reported on 3/4/04 - 4/1/04 for well GAC#2.

^{**} The detection limit is $1 \mu g/L$; the action level is 5 $\mu g/L$ detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in March 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.6	125.4	31/125.4
E-202	3.8	85.1	31/85.1
E-203		WELL REM FROM SER	
Totals	9.4	210.6	31/210.6
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
I-201	3.4	76.2	31/76.2
I-202	2.8	62.7	31/62.7
I-203	2.6	58.2	31/58.2
Totals	8.8	197.1	31/197.1

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 23.5 MG of water was treated at the Subunit A system in March 2004. The Subunit A extraction system operated at an average uptime rate of 530.7 gpm for 30.75 of 31 days this month.

The treatment system influent sample contained TCE at a concentration of 88.7 μ g/L (2/12/04) yielding a calculated mass removal of 15.92 lbs for the month of March. The March influent and effluent samples were collected but not analyzed by the laboratory due to communication errors. The sample exceeded hold times by the time the mistake was noted. The February inlet concentration was used for the mass removal calculation. The April sample was collected on April 19, 2004. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4779.48 lbs. The TCE result in the effluent sample was not collected in March. Note that the effluent has only had a detection above 1.0 μ g/L 3 times in the past four years. The highest detection was 1.4 μ g/L

The Subunit A Treatment System was offline for 6 hours in March for testing of extraction well E-16.

Production for the Subunit A system in March 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	23.5	526.4	30.75/530.7
Total Injected	22.6	506.3	30.75/510.4

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log Project Manager Input Form

PERIOD COVERED: March 2004 DATE DUE: April 15, 2004

1. Main Site Code: 1a. Facility Site Code: 2. Site Name	ADMINISTRATIV	/E INFORMATION:		• ,	
2. Site Name	1. Main Site Co	de: 41-0000-02			
3. Project Manager: Nancy Lou Sandoval 4. Funding Type: CERCLA- consent decree required Technical Information 5. DEQ Site Visits (RPM & Hydro)	1a. Facility Site (Code:			
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31. Gallons Water Treated (VOCs) 32. Hazardous Substance Removed 16.		· · · · · · · · · · · · · · · · · · ·		_	
	2/) + I tokui buo	unit C, 10/24 South Subunit C			
	31 Gallons Water	Treated (VOCs)		32. Hazardous Substance Removed	16.4
	DI. CHILDRE WATER	(, , , ,			
Subunit A	Subunit A			(· · · · · · · · · · · · · · · · · · ·	
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Southern Subunit C	Southern Subur				
9,400,000					
Northern Subunit C	Northern Subur	• •			
6,200,000					
33. Gallons Water Treated (metals) 0 34. Hazardous Substance Removed 0	33. Gallons Water		0	34. Hazardous Substance Removed	0
(metals)		· · · · · ·		(metals)	
35. Gallons Water Treated (other) 0 36. Hazardous Substance Removed 0 lbs	35. Gallons Water	Treated (other)	0	36. Hazardous Substance Removed	0 lbs
(other)				(other)	
37. Tons Soil Treated On-Site 0 38. Tons Soil Taken Off-site 0 (ton	37. Tons Soil Trea	ted On-Site	0	38. Tons Soil Taken Off-site	0 (tons)
0 (tons) 1 cy = 1 ton	0 (tons) 1 cv =	l ton			
39. Acres Remediated 40. End Use of Water - (reinjection)	,			40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date 42. Actual Completion Date / /_					



756 Park Meadow Road Westerville, Ohio 43081 614.508.1200 614 508.1201 (fax) www.sharpenv.com

May 23, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of April 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for April 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- providing a letter to ADEQ to change the chromium management target from 0.078 mg/L to 0.083 mg/L due to improved statistics since making an operational change in October 2003 (letter April 23rd);
- evaluating using E-16 as a chrome blending well (well tested at 120 gpm);
- obtaining approval for the design of the pipeline expansion;
- providing the contractor notice to proceed with construction of the E-102 pipeline (April 12th); and
- receiving the surveying results from the western City of Phoenix (COP) property line, which determined that portions of the existing perimeter fence are off property; and
- modifying the pipeline alignment to the eastern side of the COP perimeter road to ensure that
 the pipeline is on the COP property (sheets C-3,C-4, and C-5 were revised in the Issued For
 Construction set);
- receiving approval from COP for the proposed pipeline alignment change (April 27th);
- · providing Issued for Construction drawings to the contractor; and
- scheduling for the construction kickoff meeting (scheduled May 3rd).

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

J. Sickles, USEPA

S. Reif, Arizona Department of Water Resources

K. Zaleski, BEM Systems, Inc.

R. Bartholomew, Bartholomew Engineering

D. Stoltzfus, City of Phoenix

C. Parker, City of Phoenix

TO: Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEQ)

FROM: Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT: April 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE: May 23, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during April 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- · continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- providing a letter to ADEQ to change the chromium management target from 0.078 mg/L to 0.083 mg/L due to improved statistics since making an operational change in October 2003 (letter April 23rd);
- evaluating using E-16 as a chrome blending well (well tested at 120 gpm);
- obtaining approval for the design of the pipeline expansion;
- providing the contractor notice to proceed with construction of the E-102 pipeline (April 12th);
 and
- receiving the surveying results from the western City of Phoenix (COP) property line, which determined that portions of the existing perimeter fence are off property; and
- modifying the pipeline alignment to the eastern side of the COP perimeter road to ensure that the pipeline is on the COP property (sheets C-3,C-4, and C-5 were revised in the Issued For Construction set);
- receiving approval from COP for the proposed pipeline alignment change (April 27th);
- · providing Issued for Construction drawings to the contractor; and
- scheduling for the construction kickoff meeting (scheduled May 3rd).

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. Well COG #11 was not sampled in April due to the City of Goodyear taking the well off-line for maintenance. A sample will be collected when the well returns to service.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected under interim agreement. A final agreement between GTRC and the landowner was finalized in April 2004.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and

abandon the well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained. The landowner was contacted in January 2004. GTRC prepared a draft agreement for access, which the landowner is currently reviewing.

PLANS FOR THE NEXT MONTH

Plans for May 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- meeting with the contractor and the COP airport manager at a construction kickoff meeting (May 3rd);
- meeting with ADEQ and USEPA in a project status meeting (May 3rd);
- beginning preparation of a cessation plan for E-101 following startup of well E-102; and
- commencing construction of the pipeline expansion.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

03 12/12/03	1/16/04	2/12/04	3/11/04	4/10/04
	1/10/07	2/12/04	3/11/04	4/19/04
* CRT*	CRT*	CRT*	CRT*	CRT*
(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NA	0.067	.067	NA	NA
NA	0.014	0.014	NA	NA
NA	0.011	0.011	NA	0.005
NA NA	0.030	0.030	NA	0.017
0.100	0.092	0.085	0.083	0.064
0.245	0.236	0.192	0.182	(b)
NA	0.050	0.050	NA	0.041
NA	0.028	0.028	NA	0.022
0.214	0.248	0.651	0.230	0.193
NS	NS	NS	0.011	NA
0.155	0.161	0.158	0.169	0.156
	i			
0.075	.073	.077	0.075	0.054
0.078	072	070	0.068	0.050
0.078	.072	.070	0.000	0.050
) (mg/L) NA NA NA NA NA O NA O O O O O O O O O O	(mg/L) (mg/L) NA 0.067 NA 0.014 NA 0.011 NA 0.030 0 0.100 0.092 0 0.245 0.236 NA 0.050 NA 0.028 NA 0.028 NS NS 0 0.155 0.161 0 0.075 .073	D (mg/L) (mg/L) (mg/L) NA 0.067 .067 NA 0.014 0.014 NA 0.011 0.011 NA 0.030 0.030 0.100 0.092 0.085 0.245 0.236 0.192 NA 0.050 0.050 NA 0.028 0.028 0.214 0.248 0.651 NS NS NS 0.155 0.161 0.158 0.075 .073 .077	D (mg/L) (mg/L) (mg/L) (mg/L) NA 0.067 .067 NA NA 0.014 0.014 NA NA 0.011 0.011 NA NA 0.030 0.030 NA 0.100 0.092 0.085 0.083 0.245 0.236 0.192 0.182 NA 0.050 0.050 NA NA 0.028 0.028 NA 0.214 0.248 0.651 0.230 NS NS NS 0.011 0.155 0.161 0.158 0.169 0.075 .073 .077 0.068

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS - not sampled due to well off line.

NA - not analyzed as per sampling program.

(a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

(b) - E-07R was not sampled for chromium this month due to well being off-line.

The chrome target set point was changed from 0.078 mg/L to 0.083 mg/L effective in May 2004. ADEQ was notified of the change (letter April 23, 2004). This higher set point will allow higher production from the wells with higher TCE (and chrome) concentrations.

In addition, SHARP evaluated using well E-16 as a blending well for chrome. The well was tested at 120 gpm in April. The chromium concentration in the well historically has averaged 0.012 mg/L and TCE is non detect. The controls wiring to the well is faulty and SHARP is evaluating alternative methods of communication with the air stripper (i.e., radio) that would allow this well to be brought on line. The addition of this well would allow the extraction wells with higher TCE (and chrome) well rates to increase.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during April 2004. A total of 6.5 million gallons (MG) of water was extracted. The system operated 30 out of 30 days in April. The treatment system influent sample contained TCE at a concentration of 2.4 μ g/L (4/16/04) yielding a calculated mass removal this month of 0.13 lbs. Total mass removed to date by the system is 22.73 lbs. TCE was detected in the sample collected between the carbon vessels at 1.5 μ g/L.

Production for April 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.6	83.3	30/83.3
GAC#2 **	2.9	67.1	35/57.5
Total Extracted	6.5		

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

^{**} Total flow based on data as reported by Lockheed Martin reported on 4/1/04 - 5/5/04 for well GAC#2.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 8.8 MG of water was extracted from the Southern Subunit C treatment system during April 2004. The system operated 30 out of a possible 30 days. The April inlet sample contained TCE at 4.4 μ g/L (4/16/04) yielding a calculated mass removal for TCE during April of 0.32 lbs. Total mass removed to date by the Southern Subunit C system is 162.52 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system operated the entire month without outages.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B***/A***	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 15 months	to be determined

^{*} Vessel contents

Production for the Southern Subunit C system in April 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	Days On/Avg. Rate (days/gpm)
E-201	5.3	122.7	30/122.7
E-202	3.5	81.0	30/81.0
E-203		WELL REMO FROM SERV	
Totals	8.8	203.7	30/203.7
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg. Rate (days/gpm)
I-201	3.2	74.1	30/74.1
I-202	2.7	62.5	30/62.5
I-203	2.5	57.9	30/57.9
Totals	8.4	194.5	30/194.5

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A"- coconut based carbon (applies to A", A", A")

B' - coconut based carbon (applies to B", B", B", and B"")

^{**} The detection limit is 1 μ g/L; the action level is 5 μ g/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 19.2 MG of water was treated at the Subunit A system in April 2004. The Subunit A extraction system operated at an average uptime rate of 448.2 gpm for 29.75 of 30 days this month. The Subunit A Treatment System was offline for 6 hours in April for testing of extraction well E-16. The production is down this month due to the pump failures of NE-1 and NE-2. The pumps will be repaired and brought back on line following owner approval of the repair expenditure.

The treatment system influent sample contained TCE at a concentration of 74.0 μ g/L (4/19/04) yielding a calculated mass removal of 11.86 lbs for the month of April. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,791.34 lbs. The TCE result in the effluent sample was <1.0 μ g/L.

Production for the Subunit A system in April 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	19.2	444.4	29.75/448.2
Total Injected	18.4	425.9	29.75/429.5

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log

Project Manager Input Form

PERIOD COVERED: April 2004 DATE DUE: May 15, 2004

AΓ	MINISTRATIVE II	NFORMATION:		• ,	
1.	Main Site Code:	41-0000-02			
2.	Site Name	Phoenix Goodyear Airpo	rt (s	south)	
3 .	Project Manager:	Nancy Lou Sandoval			
4.	Funding Type:	CERCLA- consent decre	e re	quired	
Te	chnical Information	1			
5 .	DEQ Site Visits (R)	PM & Hydro)	0	Meetings w/Ips	0
	Public Meetings He		0	8. Fact Sheets on a site	
9.	Water Samples Tak	en (DEQ/EPA)	3	10. Water Samples Taken (IP)	
11.	Soil/Soil Gas Samr	oles Taken (DEQ/EPA)	Ū	12. Soil/Soil Gas Samples Taken (IP)	0
	Air Samples Taken		0	14. Air Sample Taken (IP)	0
	Groundwater Wells			16. Groundwater Wells Installed (IP)	0
		/ /		(2)	
17 .	Soil Vapor Wells I	nstalled (DEO)	0	18. Soil Vapor Wells Installed (IP)	0
	Date Installed /			Date Installed / /	
19.	Abandoned Ground		0	20. Abandoned Other Wells	0
	Date Abandoned	/ /		Date Abandoned / /	
21.		tion (started) overall area	0	22. Remedial Investigations (completed)	0
23.	Date Risk Assessme		0	24. Date Feasibility Study Underway	0
25 .	Date Feasibility Stu	dy Went Underway	0	26. Remedial Design 10% 30% 60%	100%
	Construction Start I			28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29.		rt Date 12/89 Subunit A; C; 10/94 South Subunit C		30. Date Remedial Action Completed	
31.	Gallons Water Trea	ted (VOCs)		32. Hazardous Substance Removed (VOCs) in GW Treatment	12.3
	Subunit A				
	19,2	200,000			
	Southern Subunit C				
	*	00,000			
	Northern Subunit C				
22	•	00,000	^	24 II 1 C1 . P 1	0
33.	Gallons Water Trea	ited (metals)	0	34. Hazardous Substance Removed (metals)	0
35.	Gallons Water Trea	ated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37 .	Tons Soil Treated (On-Site	0	38. Tons Soil Taken Off-site	0 (tons)
	0 (tons) 1 cy = 1 to	n			
39 .	Acres Remediated			40. End Use of Water - (reinjection)	
41.	Estimated reject Co	empletion Date		42. Actual Completion Date//	



756 Park Meadow Road Westerville, Ohio 43081 614.508.1200 614 508.1201 (fax) www.sharpenv.com

June 23, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of May 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for May 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- · meeting with USEPA and ADEQ to discuss the status of the project;
- coordinating a construction kickoff meeting May 3rd; and
- commencing construction of the pipeline expansion.

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

J. Sickles, USEPA

S. Reif, Arizona Department of Water Resources

K. Zaleski, BEM Systems, Inc.

R. Bartholomew, Bartholomew Engineering

D. Stoltzfus, City of Phoenix

C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEO)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

May 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

June 23, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during May 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with USEPA and ADEQ to discuss the status of the project;
- coordinating a construction kickoff meeting May 3rd; and
- commencing construction of the pipeline expansion.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. Well COG #11 was not sampled in May due to the City of Goodyear taking the well off-line for maintenance. A sample will be collected when the well returns to service.

OUTSTANDING ISSUES/RESOLUTIONS

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) has signed an access agreement and a schedule for the abandonment of this well is being developed.

The pipeline construction for E-102 was initiated in May. During May the pipeline was installed from the GAC unit to the limits of the City of Phoenix Property. This represents approximately 1/2 of the pipeline installation. Plans for June include completing the pipeline installation, pressure testing the line, developing well E-102 and beginning the electrical installation.

PLANS FOR THE NEXT MONTH

Plans for June 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- continuing preparation of a cessation plan for E-101 following startup of well E-102;
- preparing a report/proposal for ceasing production in Subunit A;
- continuing construction of the pipeline expansion; and

• coordinating the oversight of the I-203 well vault due to the taxiway paving being conducted by the City of Phoenix.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction	12/12/03	1/16/04	2/12/04	3/11/04	4/19/04	5/18/04
Well	CRT*	CRT*	CRT*	CRT*	CRT*	CRT*
Well	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NE-1	NA	0.067	.067	NA	NA	NA
NE-2	NA	0.014	0.014	NA	NA	NA
NE-3	NA	0.011	0.011	NA	0.005	NA
NE-4	NA	0.030	0.030	NA	0.017	NA
NE-5	0.100	0.092	0.085	0.083	0.064	0.076
E-07R	0.245	0.236	0.192	0.182	(b)	NA
E-08	NA	0.050	0.050	NA	0.041	NA
E-11	NA	0.028	0.028	NA	0.022	NA
E-12	0.214	0.248	0.651	0.230	0.193	0.181
E-16	NS	NS	NS	0.011	NA	NA
E-17	0.155	0.161	0.158	0.169	0.156	0.173
Air						
stripper						
Effluent	0.075	.073	.077	0.075	0.054	0.055
predicted						
(a)						
Air						
stripper	0.070	072	070	0.060	0.050	0.060
Effluent	0.078	.072	.070	0.068	0.050	0.069
actual						

^{*}CRT - total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

The chrome target set point was changed from 0.078 mg/L to 0.083 mg/L effective in May 2004. ADEQ was notified of the change (letter April 23, 2004). This higher set point allows for higher production from the wells with higher TCE (and chrome) concentrations.

In addition, SHARP evaluated using well E-16 as a blending well for chrome. The well was tested at 120 gpm in April. The chromium concentration in the well historically has averaged 0.012 mg/L and TCE is non detect. The controls wiring to the well is faulty and SHARP is evaluating alternative methods of communication with the air stripper (i.e., radio) that would allow this well to be brought on line. The addition of this well would allow the extraction wells with higher TCE (and chrome) well rates to increase.

NS - not sampled due to well off line.

NA – not analyzed as per sampling program.

⁽a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

⁽b) - E-07R was not sampled for chromium this month due to well being off-line.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during May 2004. A total of 7.9 million gallons (MG) of water was extracted. The system operated 31 out of 31 days in May. The treatment system influent sample contained TCE at a concentration of 2.6 μ g/L (5/14/04) yielding a calculated mass removal this month of 0.17 lbs. Total mass removed to date by the system is 22.90 lbs. TCE was detected in the sample collected between the carbon vessels at 1.7 μ g/L.

The Northern Subunit C system operated the entire month without outages.

Production for May 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells	-		
E-101	3.7	82.8	31/82.8
GAC#2 **	4.2	94.1	27/108.0
Total Extracted	7.9		

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 7.8 MG of water was extracted from the Southern Subunit C treatment system during May 2004. The system operated 27.2 out of a possible 31 days. The May inlet sample contained TCE at 4.6 μ g/L (5/19/04) yielding a calculated mass removal for TCE during May of 0.30 lbs. Total mass removed to date by the Southern Subunit C system is 162.82 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 3.8 days in May due to construction related outages associated with the upgrade and installation of extraction well E-102 and failure of the programmable logic controller (PLC) power supply.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 μg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months

^{**} Total flow based on data as reported by Lockheed Martin reported on 5/5/04 - 6/1/04 for well GAC#2.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 μg/l**	Time Before Required Change out
В'/А'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B""/A""	8/25/99 - 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B''''	1/16/03 - present	> 16 months	to be determined

^{*} Vessel contents

Production for the Southern Subunit C system in May 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	Days On/Avg. Rate (days/gpm)
E-201	4.6	103.0	27.2/117.4
E-202	3.2	71.7	27.2/81.7
E-203		WELL REMO FROM SERV	
Totals	7.8	174.7	27.2/199.1
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg. Rate (days/gpm)
I-201	2.7	60.5	27.2/69.0
I-202	2.4	53.8	27.2/61.3
I-203	2.2	49.3	27.2/56.2
Totals	7.3	163.3	27.2/186.5

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 17.3 MG of water was treated at the Subunit A system in May 2004. The Subunit A extraction system operated at an average uptime rate of 408.6 gpm for 29.4 of 31 days this month. The treatment system influent sample collected 5/14/04 was misplaced by the laboratory therefore mass calculations were not made for this month. The TCE result in the effluent sample was $<1.0 \mu g/L$.

The Subunit A Treatment System was offline for 1.6 days due to a general fault in the system PLC controller. The fault occurred when the PLC was removed for verification of components for the upcoming upgrade project associated with the installation of the E-102 extraction well.

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')

^{**} The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Subunit A system in May 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	17.3	387.5	29.4/408.6
Total Injected	16.6	371.9	29.4/392.1

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log

Project Manager Input Form

PERIOD COVERED: May 2004 DATE DUE: June 15, 2004

ΑĽ	DMINISTRATIVE INFORMATION:		·	
1.	Main Site Code: 41-0000-02			
2.	Site Name Phoenix Goodyear Airpor	rt (s	south)	
3.	Project Manager: Nancy Lou Sandoval			
4.		re	quired	
Te	chnical Information			
5.	DEQ Site Visits (RPM & Hydro)	0	Meetings w/Ips	0
7.	Public Meetings Held	0	8. Fact Sheets on a site	
9.	Water Samples Taken (DEQ/EPA)	3	10. Water Samples Taken (IP)	
		0		
	Soil/Soil Gas Samples Taken (DEQ/EPA)	_	12. Soil/Soil Gas Samples Taken (IP)	0
	Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15.	Groundwater Wells Installed (DEQ) Date Installed//		16. Groundwater Wells Installed (IP)	0
17 .	Soil Vapor Wells Installed (DEQ)	0	18. Soil Vapor Wells Installed (IP)	0
	Date Installed//		Date Installed//	
19.	Abandoned Groundwater Wells	0	20. Abandoned Other Wells	0
	Date Abandoned//		Date Abandoned//	_
21.	Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23.	Date Risk Assessment Completed	0	24. Date Feasibility Study Underway	0
25 .	Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27.	Construction Start Date//	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29 .	Treatment Plant Start Date 12/89 Subunit A;		30. Date Remedial Action Completed	
	2/94 North Subunit C; 10/94 South Subunit C		//	
31.	Gallons Water Treated (VOCs)		32. Hazardous Substance Removed (VOCs) in GW Treatment	
	Subunit A		(1-21)	
	17,300,000			
	Southern Subunit C			
	7,800,000			
	Northern Subunit C			
	7,900,000			
33.	Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35.	Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
3 7.	Tons Soil Treated On-Site	0	38. Tons Soil Taken Off-site	0 (tons)
	0 (tons) 1 cy = 1 ton			
39 .	Acres Remediated		40. End Use of Water - (reinjection)	
41.	Estimated reject Completion Date		42. Actual Completion Date//	



756 Park Meadow Road Westerville, Ohio 43081 614.508.1200 614 508.1201 (fax) www.sharpenv.com

October 8, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of July 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for July 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- meeting with ADEQ and USEPA to discuss the Cessation Plan for E-101 (July 15th);
- continuing construction of the pipeline expansion;
- completing the replacement of I-203 vault which required an upgrade due to the City of Phoenix (COP) taxiway paving upgrade;
- submitting a proposal to ADEQ/USEPA to cease production of E-101;
- completing repairs of the acid tank and re-starting Subunit A airstripper; and
- installing transducers in selected Subunit C wells to be used to verify capture following startup of E-102.

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc:

- J. Sussman, Goodyear Tire & Rubber Company
- J. Sickles, USEPA
- S. Reif, Arizona Department of Water Resources
- K. Zaleski, BEM Systems, Inc.
- R. Bartholomew, Bartholomew Engineering
- D. Stoltzfus, City of Phoenix
- C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEQ)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

July 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

October 8, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during July 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with ADEQ and USEPA to discuss the Cessation Plan for E-101 (July 15th);
- continuing construction of the pipeline expansion;
- completing the replacement of I-203 vault which required an upgrade due to the City of Phoenix (COP) taxiway paving upgrade;
- submitting a proposal to ADEQ/USEPA to cease production of E-101;
- completing repairs of the acid tank and re-starting Subunit A airstripper; and
- installing transducers in selected Subunit C wells to be used to verify capture following startup of E-102.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. Well COG #11 was not sampled in July due to the COP taking the well off-line for maintenance. A sample will be collected when the well returns to service.

OUTSTANDING ISSUES/RESOLUTIONS

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located, has signed an access agreement and a schedule for the abandonment of this well is being developed.

GTRC requested assistance from USEPA to obtain access across the Unidynamics property to access the landlocked property. USEPA provided a request letter to Unidynamics.

The pipeline construction for E-102 continued in July and well E-102 was developed. The Arizona Public Services (APS) received approval from the landowner to move the electrical service from the right-of-way to a private easement.

PLANS FOR THE NEXT MONTH

Plans for August 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- reviewing the current spill prevention plan for the site;
- restarting well E-101 following repair of a faulty level probe;
- receiving comments from ADEQ and USEPA on the Cessation Plan for E-101;
- submitting to ADWR the Notice of Intent to Abandon the former Goodyear Farms irrigation well; and
- continuing construction of the pipeline expansion.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

	2/12/04	3/11/04	4/19/04	5/18/04	6/21/04	7/23/04
Extraction	CRT*	CRT*	CRT*	CRT*	CRT*	CRT*
Well	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NE-1	.067	NA	NA	NA	NS	NA
NE-2	0.014	NA	NA	NA	NS	NA
NE-3	0.011	NA	0.005	NA	NS	0.010
NE-4	0.030	NA	0.017	NA	NS	0.014
NE-5	0.085	0.083	0.064	0.076	NS	0.015
E-07R	0.192	0.182	(b)	NA	NS	NA
E-08	0.050	NA	0.041	NA	NS	NA
E-11	0.028	NA	0.022	NA	NS	0.045
E-12	0.651	0.230	0.193	0.181	NS	NS
E-16	NS	0.011	NA	NA	NS	NA
E-17	0.158	0.169	0.156	0.173	NS	NS
Air stripper Effluent predicted (a)	.077	0.075	0.054	0.055	NS	NA*
Air stripper Effluent actual	.070	0.068	0.050	0.069	NS	0.023

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS - not sampled due to operation issues.

NA - not analyzed as per sampling program.

NA* - flows for the previous month were not available to calculate predicted chrome as the system was off-line.

⁽a)- the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

⁽b) - E-07R was not sampled for chromium this month due to well being off-line.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during July 2004. A total of 8.7 million gallons (MG) of water was extracted. The Northern Subunit C system was offline for the entire month of July awaiting approval for the repair of the faulty high level probe controller in injection well I-101.

Mass removal calculations for extraction well GAC#2 are estimated based on June inlet concentrations as well E-101 was offline. TCE concentration from the June 21^{st} sampling was 2.6 μ g/l, yielding a calculated mass removal for TCE during July of 0.19 lbs. Total mass removed to date by the system is 23.30 lbs.

Production for July 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	0	0	0/0
GAC#2 **	8.7	154.9	39/154.9
Total Extracted	8.7		

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 7.2 MG of water was extracted from the Southern Subunit C treatment system during July 2004. The system operated 15.5 out of a possible 31 days. The July inlet sample contained TCE at 4.0 μ g/L (7/23/04) yielding a calculated mass removal for TCE during July of 0.24 lbs. Total mass removed to date by the Southern Subunit C system is 163.22 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 15 days in July due to construction related outages associated with the upgrade and installation of extraction well E-102 and vault reconstruction for injection well I-203.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 μg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months

^{**} Total flow based on data as reported by Lockheed Martin reported on 7/2/04 - 8/10/04 for well GAC#2.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 μg/l**	Time Before Required Change out
В'/А'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B***/A***	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 18 months	to be determined

^{*} Vessel contents

Production for the Southern Subunit C system in July 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	Days On/Avg. Rate (days/gpm)
E-201	5.3	118.7	15.5/237.5
E-202	1.9	42.6	15.5/85.1
E-203		WELL REMO FROM SERV	
Totals	7.2	161.3	15.5/322.6
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg. Rate (days/gpm)
I-201	3.7	82.9	15.5/165.8
I-202	2.9	65.0	15.5/129.9
I-203	0.3	6.7	0/0
Totals	6.9	154.6	15.5/309.1

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 3.7 MG of water was treated at the Subunit A system in July 2004. The Subunit A extraction system operated at an average uptime rate of 285.5 gpm for 9 of 31 days this month. The treatment system influent sample contained TCE at a concentration of 12.0 μ g/L (7/23/04) yielding a calculated mass removal of 0.37 lbs for the month of July. Total mass removed for the system to date is 4,805.06. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 μ g/L.

The Subunit A system was offline for 22 days in July due to awaiting repair of the leaking bulk acid storage tank and for repair and replacement of the tower level pressure switch.

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A"- coconut based carbon (applies to A", A", A")

B' - coconut based carbon (applies to B", B", B", and B"")

^{**} The detection limit is $1 \mu g/L$; the action level is $5 \mu g/L$ detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Subunit A system in July 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	3.7	83.0	9/285.5
Total Injected	3.6	81.0	9/277.8

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log Project Manager Input Form **PERIOD COVERED: July 2004** DATE DUE: August 15, 2004 ADMINISTRATIVE INFORMATION: 1. Main Site Code: 41-0000-02 2. Site Name Phoenix Goodyear Airport (south) 3. Project Manager: Nancy Lou Sandoval Funding Type: CERCLA- consent decree required **Technical Information** 5. DEQ Site Visits (RPM & Hydro) 0 0 6. Meetings w/Ips 7. Public Meetings Held 0 8. Fact Sheets on a site 9. Water Samples Taken (DEQ/EPA) 10. Water Samples Taken (IP) 11. Soil/Soil Gas Samples Taken (DEQ/EPA) 12. Soil/Soil Gas Samples Taken (IP) 0 13. Air Samples Taken (DEQ/EPA) 0 14. Air Sample Taken (IP) 0 15. Groundwater Wells Installed (DEQ) 16. Groundwater Wells Installed (IP) 0 Date Installed ___/__/ 0 18. Soil Vapor Wells Installed (IP) 0 17. Soil Vapor Wells Installed (DEQ) Date Installed / / Date Installed / / 0 19. Abandoned Groundwater Wells 0 20. Abandoned Other Wells Date Abandoned / / Date Abandoned / / 21. Remedial Investigation (started) overall area 0 22. Remedial Investigations (completed) 0 and/or facilities (see comments). 0 23. Date Risk Assessment Completed 0 24. Date Feasibility Study Underway 1 1 0 26. Remedial Design 10% 30% 60% 100% 25. Date Feasibility Study Went Underway 27. Construction Start Date / / 0 28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil 30. Date Remedial Action Completed 29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C 31. Gallons Water Treated (VOCs) Hazardous Substance Removed 0.80 (VOCs) in GW Treatment Subunit A 3,7300,000 Southern Subunit C 7,200,000 Northern Subunit C 8,700,000 33. Gallons Water Treated (metals) 0 34. Hazardous Substance Removed 0 (metals) 35. Gallons Water Treated (other) 0 36. Hazardous Substance Removed 0 lbs (other) 37. Tons Soil Treated On-Site 0 38. Tons Soil Taken Off-site 0 (tons) 0 (tons) 1 cy = 1 ton39. Acres Remediated 40. End Use of Water - (reinjection)

42. Actual Completion Date / /

41. Estimated reject Completion Date



756 Park Meadow Road Westerville, Ohio 43081 614.508.1200 614 508.1201 (fax) www.sharpenv.com

October 13, 2004

Ms. Nancy Lou Sandoval Remedial Project Manager Arizona Department of Environmental Quality 1110 West Washington Phoenix, AZ 85007

Subject:

Transmittal of August 2004, Monthly Progress Report

Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for August 2004, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- · continuing construction of the pipeline expansion;
- receiving comments from ADEQ on the proposal to cease production of E-101 (August 17th);
- submitting to ADWR the Notice of Intent to Abandon the former Goodyear Farms irrigation well; and
- installing two additional transducers in selected Subunit C wells to be used to verify capture following start-up of E-102 (six total are now being utilized at the site).

If you have any questions, please feel free to call me at (614) 508-1213.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.

Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

- J. Sickles, USEPA
- S. Reif, Arizona Department of Water Resources
- K. Zaleski, BEM Systems, Inc.
- R. Bartholomew, Bartholomew Engineering
- D. Stoltzfus, City of Phoenix
- C. Parker, City of Phoenix

TO:

Nancy Lou Sandoval, Remedial Project Manager

Arizona Department of Environmental Quality (ADEQ)

FROM:

Jeff Sussman, Project Manager

The Goodyear Tire & Rubber Company (GTRC)

SUBJECT:

August 2004 Monthly Progress Report,

Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona

DATE:

October 13, 2004

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during August 2004. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- · collecting monthly effluent samples;
- continuing construction of the pipeline expansion;
- receiving comments from ADEQ on the proposal to cease production of E-101 (August 17th);
- submitting to ADWR the Notice of Intent to Abandon the former Goodyear Farms irrigation well; and
- installing two additional transducers in selected Subunit C wells to be used to verify capture following start-up of E-102 (six total are now being utilized at the site).

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. Well COG #11 was not sampled in August due to the COP taking the well off-line for maintenance. A sample will be collected when the well returns to service.

OUTSTANDING ISSUES/RESOLUTIONS

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) has been located and has signed an access agreement. A schedule for the abandonment of this well is being developed. GTRC requested assistance from USEPA to obtain access to the well by crossing the Unidynamics property to gain access to the Levinski landlocked property where the well is located. USEPA provided a request letter to Unidynamics. As of the date of this report, GTRC has not received a response from Unidynamics regarding permission for access to the well.

The construction of the pipeline from E-102 continued during August. The civil components of the pipeline were completed. The electrical wiring of the building at E-102 was completed. With the exception of the power service feed from APS, the balance of the construction is projected to be completed in mid-September. The power service from APS is projected for October with a system startup in mid-to-late October.

PLANS FOR THE NEXT MONTH

Plans for September 2004 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- reviewing the current spill prevention plan for the site;
- completing reconstruction of injection well I-203 well vault and placing back online (scheduled September 15th);
- responding to comments from ADEQ and USEPA on the pumping Cessation Plan for E-101;
- submitting a proposal to ADEQ and USEPA for a path forward to cease production from Subunit A; and
- meeting with ADEQ and USEPA to discuss project status (meeting scheduled September 15th).

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction	3/11/04	4/19/04	5/18/04	6/21/04	7/23/04	8/17/04
Well	CRT*	CRT*	CRT*	CRT*	CRT*	CRT*
Well	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NE-1	NA	NA	NA	NS	NA	NA
NE-2	NA	NA	NA	NS	NA	NA
NE-3	NA	0.005	NA	NS	0.010	NA
NE-4	NA	0.017	NA	NS	0.014	NA
NE-5	0.083	0.064	0.076	NS	0.015	0.076
E-07R	0.182	(b)	NA	NS	NA	NS
E-08	NA	0.041	NA	NS	NA	NS
E-11	NA	0.022	NA	NS	0.045	NA
E-12	0.230	0.193	0.181	NS	NS	NS
E-16	0.011	NA	NA	NS	NA	NS
E-17	0.169	0.156	0.173	NS	NS	0.143
Air stripper Effluent predicted (a)	0.075	0.054	0.055	NS	NA*	0.035
Air stripper Effluent actual	0.068	0.050	0.069	NS	0.023	0.050

^{*}CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS - not sampled due to operation issues.

NA - not analyzed as per sampling program.

NA* - flows for the previous month were not available to calculate predicted chrome as the system was off-line.

(a)— the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

(b)—E-07R was not sampled for chromium this month due to well being off-line.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during August 2004. A total of 6.9 million gallons (MG) of water was extracted. The Northern Subunit C system was offline for 24.75 days due to a faulty high level probe controller in injection well I-101.

The treatment system influent sample contained TCE at a concentration of 3.9 μ g/L (8/31/04) yielding a calculated mass removal this month of 0.22 lbs. Total mass removed to date by the system is 23.52 lbs. TCE was detected in the sample collected between the carbon vessels at 1.1 μ g/L.

Production for August 2004 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	0.71	15.9	6.25/78.9
GAC#2 **	6.2	138.9	28/153.8
Total Extracted	6.9		

^{*} Injection well flow meter not operating correctly and is reporting erroneous data.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.7 MG of water was extracted from the Southern Subunit C treatment system during August 2004. The system operated 26.9 out of a possible 31 days. The August inlet sample contained TCE at 4.0 μ g/L (8/17/04) yielding a calculated mass removal for TCE during August of 0.32 lbs. Total mass removed to date by the Southern Subunit C system is 163.54 lbs. The TCE result was <1.0 μ g/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 4.1 days in August due to a PLC fault from a suspected power failure, and for repair of conduits damaged during installation of an antenna pole (at the Southern Subunit C system). This antenna upgrade is required to improve communications between the AST and the remote sites via the existing data radio network due to the close proximity of plane parking in the area and blocking the radio signal.

^{**} Total flow based on data as reported by Lockheed Martin reported on 8/10/04 - 9/7/04 for well GAC#2.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 - 8/25/99	12 months	14 months
B""/A""	8/25/99 - 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A''''/B''''	1/16/03 - present	> 19 months	To be determined

^{*} Vessel contents

Production for the Southern Subunit C system in August 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	Days On/Avg. Rate (days/gpm)
E-201	7.3	163.5	26.9/188.5
E-202	2.4	53.8	26.9/62.0
E-203		WELL REMO FROM SERV	
Totals	9.7	217.3	26.9/250.4
Injection Wells	Production (MG)	Average Rate(gpm)	Days On/Avg. Rate (days/gpm)
I-201	5.3	118.7	26.9/136.8
I-202	4.2	94.1	26.9/108.4
I-203	0	0	0/0
Totals	9.5	212.8	26.9/245.2

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 17.3 MG of water was treated at the Subunit A system in August 2004. The Subunit A extraction system operated at an average uptime rate of 405.9 gpm for 29.6 of 31 days this month. The treatment system influent sample contained TCE at a concentration of 77.0 μ g/L (8/17/04) yielding a calculated mass removal of 11.12 lbs for the month of August. Total mass removed for

A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A"- coconut based carbon (applies to A", A", A")

B' - coconut based carbon (applies to B", B", B", and B"")

^{**} The detection limit is $1 \mu g/L$; the action level is $5 \mu g/L$ detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

the system to date is 4,816.18. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was $<1.0 \mu g/L$.

The Subunit A system was offline for 1.4 days due to failure and clogging of the AST acid feed pump.

Production for the Subunit A system in August 2004 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	17.3	387.5	29.6/405.9
Total Injected	16.6	371.9	29.6/389.5

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log Project Manager Input Form **PERIOD COVERED: July 2004** DATE DUE: September 15, 2004 ADMINISTRATIVE INFORMATION: 41-0000-02 1. Main Site Code: 2. Site Name Phoenix Goodyear Airport (south) Project Manager: Nancy Lou Sandoval 3. Funding Type: **CERCLA- consent decree required Technical Information** 0 5. DEO Site Visits (RPM & Hydro) 0 6. Meetings w/Ips 7. Public Meetings Held 0 8. Fact Sheets on a site 9. Water Samples Taken (DEQ/EPA) 10. Water Samples Taken (IP) 3 11. Soil/Soil Gas Samples Taken (DEQ/EPA) 12. Soil/Soil Gas Samples Taken (IP) 0 13. Air Samples Taken (DEQ/EPA) 0 14. Air Sample Taken (IP) 0 15. Groundwater Wells Installed (DEO) 16. Groundwater Wells Installed (IP) 0 Date Installed / / 17. Soil Vapor Wells Installed (DEQ) 0 18. Soil Vapor Wells Installed (IP) 0 Date Installed / / Date Installed / / 19. Abandoned Groundwater Wells 0 20. Abandoned Other Wells 0 Date Abandoned / / Date Abandoned / / 21. Remedial Investigation (started) overall area 0 22. Remedial Investigations (completed) 0 and/or facilities (see comments). 23. Date Risk Assessment Completed 0 24. Date Feasibility Study Underway 0 0 26. Remedial Design 10% 30% 60% 25. Date Feasibility Study Went Underway 100% 0 28. Technology Used: pump and treat for 27. Construction Start Date ___/__/__ water (air stripper Subunit A/GAC for Subunit C), SVE for Soil 30. Date Remedial Action Completed 29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C 11.66 32. Hazardous Substance Removed 31. Gallons Water Treated (VOCs) (VOCs) in GW Treatment Subunit A 17,300,000 Southern Subunit C 9,700,000 Northern Subunit C 6,900,000 0 33. Gallons Water Treated (metals) 0 34. Hazardous Substance Removed (metals) 0 lbs 0 36. Hazardous Substance Removed 35. Gallons Water Treated (other) (other) 37. Tons Soil Treated On-Site 0 38. Tons Soil Taken Off-site 0 (tons) 0 (tons) 1 cy = 1 ton39. Acres Remediated 40. End Use of Water - (reinjection)

42. Actual Completion Date / /

41. Estimated reject Completion Date